North Carolina Broadband Infrastructure Office Response: In the Matter of Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 17-199

BENCHMARKS & METRICS

The North Carolina Broadband Infrastructure Office (NC BIO) in the Department of Information Technology believes the FCC should develop a measurement tool, such as an index, that considers the various characteristics of fixed and mobile broadband technologies. If an index or a similar measurement tool is adopted, we support the proposal to consider fixed and mobile technologies together when measuring the deployment of and access to advanced telecommunications capabilities. Both technologies have benefits and drawbacks that must be considered and weighed to determine whether advanced telecommunications capability is being deployed to all Americans in a timely and reasonable manner.

Households that rely on mobile technology for their internet connection, especially where wireline access does not exist, benefit from that service. This needs to be considered when measuring access. We also recognize the benefits mobile access can bring to rural areas that may never see a wireline connection. However, most mobile wireless services do not currently offer the reliable bandwidth needed for advanced applications. Further, the imposition of data caps can make it unaffordable to run advanced applications, such as video. While mobile broadband can be a solution for those without any access—for example, hotspots are increasingly used as a solution to address the homework gap—we view the adoption of mobile broadband (as currently provided and used) as a step on the path to a more permanent connection. Until mobile technology advances, it is not an adequate substitute for wireline or fixed wireless connections for those who require the service for advanced applications. We propose creating a framework or index that considers several characteristics or data to measure advancement. We discuss this idea briefly below.

For example, the FCC could create an Availability Index, using data points listed below, to determine access and timely and reasonable deployment. Data could be obtained from annual reports released by the FCC and the Census Bureau. The values for each indicator should be averaged and assigned a weight (For example, type of technology may be weighted slightly more than data caps.). Qualitative factors should be used.

Factors to consider within a framework or index are:

- Infrastructure/type of technology
- Latency, based on technology averages
- Cost
- Competition—the number of consumer choices impacts both innovation and affordability
- Data caps
- Potential usage (videos, number of devices it can support).

NC BIO has worked with the National Telecommunications and Information Administration (NTIA) on similar tools. We encourage the FCC to reach out to NTIA and partner on developing such a tool. Creating an index would give a more accurate diagnosis of the country's broadband health. This would be more comprehensive than simply determining access, and it would more accurately assess the deployment of broadband and not just internet access at a specific speed threshold.

Regarding speed benchmarks, we encourage the Commission to maintain the current speed benchmark for wireline as one factor for measuring the deployment of fixed broadband. This benchmark not only serves as a measurement tool, but it also serves as an objective or an aspirational goal for policy makers. We would like to see the bar set high.

However, the fixation on speed alone has many providers and consumers chasing the wrong objectives. We need to look to the future and the investment in infrastructure that will facilitate the growth of internet use and the development of complex, data-intensive applications. Measuring deployment and access to advance telecommunications capability must include several factors.

Deployment to low-income Americans should be considered. Cost or affordability is a key factor/consideration in any evaluation. It should be used to evaluate whether broadband is being deployed to low-income households in a reasonable and timely manner.

Despite the advancements and changing characteristics of mobile broadband, we need to be cautious about using the two technologies interchangeably to measure the advancement of advanced telecommunications service without identifying each technology's limitations.

DATA SOURCES AND ANALYSIS

The FCC should NOT continue the current methodology to calculate the percentage of Americans with access to fixed advanced telecommunications capability. Despite the difficulties with collecting street-level or specific location data from providers, the FCC should attempt to collect more granular data from providers.

If the current collection methods are unchanged, internet service providers (ISP) should at minimum state the number of locations they can serve within a census block. A more statistically accurate calculation could then be made using Census Bureau household data.

Comparing year-to-year deployment is important, but so is continuing to provide data on the percent of the population which has access at specific speed benchmarks. The two figures are not interchangeable as one shows where infrastructure has expanded, and one shows how many households have access to the technology. Both are useful, and the FCC should collect and publish both. In North Carolina, we use Form 477 data to map visual representations of the deployment of each technology and the availability of the broadband speed benchmark. In addition, we use the percent coverage data for several research and policy projects. Percent coverage data should be provided more frequently, at least annually, as well.

ACTIONS TO ACCELERATE ADVANCED TELECOMMUNICATIONS DEPLOYMENT

The FCC should explore policies or policy recommendations that enhance and incentivize the deployment of next-generation, future-proof infrastructure by reducing deployment costs:

- Ease access to rights-of-way, utility poles and vertical assets
- Create "Dig Once" and "One Touch" best practices or guidance to reduce the number of times the rights of ways (ROWs) are disrupted and allow the ROW owners to better manage encroachments and reduce permitting costs

In conclusion, the FCC should take a comprehensive approach to measuring the deployment of advanced telecommunications capability, or broadband, by considering several data or factors. More granular data from internet service providers on Form 477 should be required.

North Carolina Broadband Infrastructure Office

The Broadband Infrastructure Office, a division of the North Carolina Department of Information Technology, was established in early 2015 as a statewide resource for broadband availability and adoptions initiatives. The mission of BIO is to provide policy recommendations and planning guidance to community and state leaders to foster the expansion of high-speed internet access with the objective of improving global competitiveness, education, public safety, health care, and government efficiency. In keeping with the belief that organized and informed communities will bridge the digital divide, a technical and community assistance team partners with willing communities to provide on-the-ground assistance to implement those policies and plans.